

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/050717 A2

- (51) International Patent Classification⁷: **H01L**
- (21) International Application Number:
PCT/US2004/039134
- (22) International Filing Date:
18 November 2004 (18.11.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/523,434 18 November 2003 (18.11.2003) US
PCT/US2003/036869
18 November 2003 (18.11.2003) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MICRO-TRANSDUCER AND THERMAL SWITCH FOR SAME

(57) Abstract: The present disclosure concerns embodiments of a micro-transducer and a thermal switch used to control the transfer of heat into and away from the micro-transducer. In one embodiment, the thermal switch includes at least one drop of a thermally conductive liquid and is operate a to alternately establish a path of high thermal conductance and low thermal conductance between a micro-transducer and a heat source or heat sink via the drop. In another embodiment, the thermal switch includes at least one nanostructure (e.g., a bundle of carbon nanotubes), and is operable to alternately establish a path of high thermal conductance and low thermal conductance between a micro-transducer and a heat source or heat sink via the nanostructure. Also disclosed are embodiments of a thermal switch that can be selectively activated to alternately establish a path of high thermal conductance and low thermal conductance between a heat sink and a heat source.

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